

Docket No. HOE96/F319CON

PATENT

REMARKS**Pending Claims**

Claims 6, 58, and 71 have been amended to more clearly describe Applicants' invention. More specifically, claims 6 and 71 have been amended to recite that the gel is the silicatic hydrogel. Support for this amendment can be found throughout the present application, and, in particular, page 8, lines 9-19, page 11, lines 1-12, and page 12, line 26 to page 13, line 3. Also, claim 58 has been amended to clarify the pH values. Support for this amendment can be found, for example, on page 9, lines 24-30. Claims 80 and 82 have been amended to remove multiple dependencies. Finally, claims 69 and 118 have been cancelled without prejudice to filing these claims in one or more continuation applications. No new matter has been added. Thus, claims 2-4, 6, 7, 56-59, 62, 63, 67-68, 71, 76, 77, 79-115, 117, and 119 are pending.

Rejection of Claims under 35 U.S.C. § 112

The Examiner has rejected claims 6, 58, 71, 96, 100, and 112 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

In paragraph 3 of the Office Action, the Examiner states that, in claims 6 and 71, "the gel" lacks proper antecedent basis and that it is unclear whether Applicants are referring to "the organically modified aerogel", "the silicatic hydrogel", or "the hydrophobic surface-modified gel". The Examiner also states that, in claim 58, it is unclear what the acid is added to pH ≥ 8 and that it is unclear what this pH value refers to. Finally, in claims 96, 100, and 112, the Examiner states that the steps of "drying the surface of the hydrogel" (for claim 96) and "reacting prior to silylating" (for claims 100 and 112) are inconsistent with Applicants' definition of "hydrogel" shown on page 6, lines 29-34 of the present application. In particular, the Examiner states that these limitations would not be in dispersion or containing a

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liquid of at least 50% by weight water as the liquid phase. Also, the Examiner states that the limitation of claims 100 and 112 would result in a "surface-modified gel", which would preclude the following step b), modifying the surface of "the hydrogel obtained in step a)" by mixing "the hydrogel" with a silylating agent.

Regarding claims 6 and 71, these claims have been amended to recite that the gel is the silicatic hydrogel. Support for this can be found, for example, on page 8, lines 9-19, page 11, lines 1-12, and page 12, line 26 to page 13, line 3 of the present application. Applicants therefore respectfully request that the rejection of claims 6 and 71 be withdrawn.

Regarding claim 58, this claim has been amended to more clearly describe the pH values. Thus, this claim recites that the hydrogel is formed by lowering the pH of the aqueous waterglass solution by addition of acid to a pH that is ≥ 8 . In a further step, the pH of between 3 and 8 is then established. This is also described in more detail on page 9, lines 24-30 of the present application. Applicants therefore respectfully request that the rejection of claim 58 be withdrawn.

Regarding claim 96, 100, and 112, Applicants believe that the recited features of these claims are consistent with the definition of a hydrogel provided in the present application. In particular, a hydrogel is defined as a special case of a lyogel, "i.e., a gel which contains liquid" (page 6, lines 33-34). For a hydrogel, the liquid of the gel contains at least 50% by weight water (page 6, lines 30-32). Thus, a hydrogel is a gel that contains at least 50% by weight water.

For each of claims 96, 100, and 112, while various features of these claims further define the hydrogel, the materials are still properly referred to as hydrogels, as the term is presently defined. For example, regarding claim 96, while this claim recites that "an outer surface of the hydrogel obtained in step a) is dried prior to surface modification", the material is still a hydrogel since it is the surface that is dried. The material would still contain a liquid that is at least 50% by weight water, for example, in the pores of the gel and would therefore properly be referred to as a hydrogel. This is described in more detail on page 20, line 32 to page 21, line 34 of the present application.

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Furthermore, for claims 100 and 112, the feature that "the gel obtained in step a) is reacted, prior to silylation, with a solution of condensable orthosilicate" does not mean the material does not contain a liquid that is at least 50% by weight water. Rather, this describes an embodiment of the present invention in which the gel is subjected to additional network reinforcement and is described in more detail, for example, on page 24, lines 17-24 of the present application. In addition, such condensable orthosilicates used for this step are distinguished from the silylating agents used in step b) and described in detail on page 13 to page 23 of the present application. Thus, reaction with the condensable orthosilicates does not produce a "surface-modified gel", as the term is used herein.

Therefore, Applicants believe that claims 96, 100, and 112 are not indefinite and that these claims clearly describe Applicants' invention. Applicants therefore respectfully request that the rejection of claims 96, 100, and 112 be withdrawn.

Double Patenting

In paragraph 4 of the Office Action, the Examiner has objected to claim 118, which depends from claim 56, under 37 C.F.R. 1.75 as being a substantial duplicate of independent claim 57. In addition, the Examiner has objected to claim 69, which depends from claim 68, as being a substantial duplicate of claim 67, which is depends from claim 62. The Examiner notes that when two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim.

In order to advance prosecution of the present application, Applicants have cancelled claims 67 and 118 without prejudice to filing these claims in one or more continuation applications.

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Allowable Subject Matter

In paragraph 5 of the Office Action, the Examiner states that claims 2-4, 7, 56-57, 59, 62-63, 67-68, 76-77, 79-95, 97-99, 101-111, 113-115, 117, and 119 are allowable.

Applicant is grateful for the allowable subject matter. In addition, as discussed in more detail above, Applicants further believe that claims 6, 58, 71, 96, 100, and 112 should also be found allowable in view of the comments provided herein.

Conclusion

In view of the foregoing amendments and remarks, Applicants believe that this application is considered to be in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would further expedite the prosecution of the subject application, the Examiner is invited to call the undersigned.

Respectfully submitted,



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